

**A PHASE I ARCHAEOLOGICAL SURVEY OF
BLANCO CROSSING UNIT THREE,
NORTHERN BEXAR COUNTY, TEXAS**

by

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Submitted to

FROST GEOSCIENCES

Helotes, Texas

Report No. 43

Abasolo Archaeological Consultants

San Antonio, Texas

2006

Abstract

A Phase 1 archaeological survey was carried out of an 8-acre parcel slated for development as Blanco Crossing Unit 3. The fieldwork was conducted by Abasolo Archaeological Consultants, on behalf of Frost Geosciences and at the request of the City of San Antonio Historic Preservation Office. The initial survey yielded three tightly clustered prehistoric features recorded as site 41BX1700. Area A is a dome-shaped burned rock midden, Area B is a possible occupation area, and Area C, a thin burned rock deposit. After consultation with the Historic Preservation Office, it was decided to place two backhoe trenches on the margins of Area A. The burned rock midden is 30 cm thick, resting on bedrock. However, no internal features were noted and no diagnostic artifacts were found. Elsewhere on the property, a rock accumulation of historic age was noted, but did not warrant recording as a site.

Site 41BX1700 is not eligible for nomination to the National Register of Historic Places. No further archaeological research is needed at Blanco Crossing Unit 3.

Introduction

Abasolo Archaeological Consultants conducted an archeological survey of the 8 acres in the Blanco Crossing, Unit 3 for Frost Geosciences at the request of the City of San Antonio. The 100% surface survey was carried out in order to locate and any archaeological or historical site that might be present and to assess the significance of such sites regarding consideration for nomination to National Register of Historic Places. One prehistoric site and one historic feature were documented. The prehistoric archaeological site, recorded as site 41BX1700 consists of two burned rock middens (Areas A, C) and a concentration of flakes (Area B) representing a possible occupation area. After consultation with Kay Hinder of the City's Historic Preservation office, we tested the larger of the middens (Area A) by excavating two backhoe trenches to examine for internal features and recover temporally diagnostic artifacts. No features and no temporally diagnostic artifacts were recovered.

Site Setting

Blanco Crossing Unit 3 is located along Panther Springs Creek in the Balcones Canyonlands in northern Bexar County. The canyons in this part of the county are often spring fed and provided an abundance of critical resources for prehistoric groups that once occupied this part of Texas. Indeed, Panther Springs Creek is well known for the numerous archaeological sites along its course, and Blanco Crossing Unit 3 proved to be no exception. The entire 8-acre tract exhibited traces of prehistoric utilization in one form or another.

The property was densely covered with thick stands of juniper intermixed with oaks and other native underbrush. Ground visibility around the juniper clumps was good, and consisted of shallow soils and exposed limestone. Fire-cracked rock and chipped stone flakes were thinly scattered across much of the property, and were especially concentrated in and around the three prehistoric cultural features.

The survey area is dominated by Cretaceous age Edwards limestone. The Edwards formation is noted both geologically and archaeologically as a source of high quality chert, a critical resource for the prehistoric Native Americans who relied on their stone technologies for basic utilitarian cutting, scraping, piercing, and chopping tools. Edwards chert outcrops near the survey area and chert nodules were observed within the tract.

The Tarrant Series soil encompasses all of the project locale. It is specifically mapped as "TaB, Tarrant Association, gently undulating," and characterized by dark, shallow soils overlying hard limestone. The soils are rocky, ranging from cobbles to flagstone-sized fragments (Taylor et al. 1991:30).

Archaeological Background

The Panther Springs Creek drainage, whose channel is along the west side of Blanco Crossing, has seen very extensive archaeological research over the past three decades. However, most of that research has been downstream, south of Loop 1604. A

comprehensive field and analytical study of 41BX228 (the Panther Springs Creek site), about six miles to the south, provides detailed insights into the chronology, material culture, and resource utilization in the region (Black and McGraw 1985). Similarly, later work at sites on proposed Wurzbach Parkway, near 41BX228, has also lead to the recovery of much additional archaeological data (Potter and Black 1995).

Regional Cultural Patterns and Chronology

The broad outline of the archaeology of northern Bexar County can be discerned. Major time periods and site types are briefly noted here (cf. Hester 2004), and more details on the cultural sequence in the Panther Springs Creek drainage can be found in Black and McGraw (1985) and in updated form in Potter et al. (1995).

The **Paleoindian** period, 9,200-6,800 B.C., has distinctive chipped stone spear points used in hunting mammoth and other late Ice Age mammals early in the period. Other spear types appear with a shift to bison, deer and other game after the Ice Age ended around 8000 B.C. Known site types in northern Bexar County are *campsites* with flint-chipping debris from stone-tool making and repair. One site of Clovis age (9,200 B.C.) was excavated near FM1604 and Leon Creek. A later site, dating around 7,500 B.C., was investigated on the grounds of St. Mary's Hall on Salado Creek. Most recently, the Chandler site on Culebra Creek has been partially excavated, yielding artifacts between 7,500-6,800 B.C.

Sites of the following **Archaic** period are common in northern Bexar County. These peoples were hunters and gatherers as in the earlier Paleoindian period, but lived in an environment very similar to those of modern times. Projectile points used to tip spears (often erroneously called "arrowheads") change in shape through time, from 6,800 B.C. to 500 A.D. Archaeologists use these forms to recognize more specific time frames within the Archaic (e.g., Early, Middle and Late Archaic). In northern Bexar County, the most distinctive Archaic site is the *burned rock midden*. These large accumulations of fire-cracked limestone result from the use of earth-oven cooking starting around 3,000 B.C. (Black et al. 1997). Such features were part of *larger campsites*, with large amounts of flint debris from tool-making; sometimes, animal bone (dietary remains) and charcoal that can be used for radiocarbon dating. Other Archaic site types include *lithic procurement* areas (quarries; where flint cobbles eroded out of the Edwards limestone and were processed), *lithic scatters* (lightly-used areas probably representing short-term hunting and gathering activities), and rarely, *sinkhole burials* (Archaic peoples often disposed of their dead by placing them in sinkholes and caverns).

By 700 A.D., there began to be some changes in the long hunter-gatherer lifeway. The **Late Prehistoric** is first recognized with the introduction of the bow and arrow. The stone arrow points are very small (mistakenly called "bird points"), but could be used in hunting game of any size. By 1300 A.D., the economy emphasized buffalo-hunting. Most sites of this era include *campsites*, often in areas previously used by Archaic peoples, *lithic scatters* of this age; and the *lithic procurement areas* of earlier times continued to be used.

During the Historic period, the best known archaeological remains are *ranch and farm houses of cut stone*, dating from the 1840s through the 1880s. Stacked- stone fences also occur. Such sites, including those without surviving structures, are recognized from 19th century pottery fragments, artifacts of glass and metal, etc. Later Historic houses and farmsteads, through the early 1900s, are also found.

Archaeological Sites in the Project Area

There are surprisingly few archaeological sites documented on this section of Panther Springs Creek, north of FM1604. The nearest sites are to the north, 41BX409, 410, 411, 413, and 415, all recorded during the first survey of Camp Bullis (Gerstle, et al. 1977). All are basically lithic procurement areas or lithic scatters, including BX413, the nearest to the Blanco Crossing study area.

To the south, on the west side of Panther Springs Creek adjacent to FM1604 is 41BX65. Recorded by William Fawcett in 1971 (as part of his own, unfunded survey of areas to be disturbed by construction). It, too, is a lithic procurement locality.

Survey Methods

A 100% pedestrian survey was carried by a five-person team headed by Thomas Hester and Harry Shafer, accompanied by Steve Frost and Brian Culver of Frost GeoSciences and Chris Wilson. The survey party split into two groups and methodologically traversed the property walking around the through thick stands of juniper, noting the surface distribution of chipped stone artifacts (mainly flakes) and fire-cracked limestone rock. Cultural feature encountered during the survey were located on aerial and topographic maps noting UTM coordinates using hand-held Garmin GPS units. Digital images were made of the landscape and of all cultural features recorded.

Survey Findings

The “D-shaped” property consisted of a rocky upland slope bordered on the west by Panther Springs Creek floodplain and creek. A steep limestone bluff lines the creek on the west side. As noted above, the upland surface contains a light scatter of chert flakes and burned rock, tell-tale signs of prehistoric occupation. Much of the upland slope east of Panther Springs creek was recorded as an archaeological site. In addition to the light lithic scatter, three cultural features, two burned rock middens and a possible campsite area were also recorded within the site area. These features, designated as Areas A-C, are treated as horizontal components with one site. The site and internal features are described below.

Blanco Crossing Site (41BX1700)

The Blanco Crossing site is a large site that covers much of the Blanco Crossing Unit 3 tract. It is bordered on the east by Blanco Road and around the remaining property by an

inside bend of Panther Springs Creek. The overall site area is about 140 meters north-south, and 90 meters east-west. Three features documented within the site consist of two burned rock middens and a possible campsite area. Each is described separately.

Area A: This dome-shaped midden is very typical of the kinds of burned rock middens that occur in the Balcones Canyonlands in northern Bexar County, especially in the vegetation zone in which sotol occurs. The GPS location for the midden is 0546669E, 3276980N (Zone 14, NAD 27). The midden averages about 50 cm high at the crest southeast of the center where it drops off more abruptly to the south and east. The midden area measured 15 meters northwest-southeast and 11 meters northeast-southwest. Although no central pit was clearly discernable as a heavy growth of juniper obscured a clear perspective of the surface morphology. A possible hint of a pit feature was seen on the northern area shown as an anomaly on the topographic map in Figure 5. Certainly a central pit features could have existed. A large relic-hunter's pothole that measured about two meters in diameter and 50 cm deep was on the southeast quadrant of the midden (Fig. 5). This pit was recent and was excavated since the last rain of about two weeks prior to the survey. Smaller and much older potholes were noted on the north side of the midden and in a possible occupation area to the east of the midden. A light scatter of chipped stone flakes was noted in the area of the midden, no diagnostic artifacts were observed on the site.

The midden was tested with a backhoe for the purposes of searching for internal features (Fig. 6), assess the depth and structure of the deposit, and to obtain diagnostic artifacts that might indicate a chronological age for the site. Two short trenches were excavated (Fig. 5).

Trench 1 was 3.5 meters long and 70 cm wide and oriented along the long northwest-southeast axis of the midden. It was excavated on the southwest slope on hopes of intersecting a possible internal pit feature and to obtain profiles of the midden (Figs 6-8). Trench 2 was excavated along the eastern portion of the trench, intersecting with the large pothole (Fig. 8). The backdirt from Trench 1 was screened through a ¼-inch hardware mesh, and the fill from Trench 2 was visually inspected for artifacts. Despite these efforts, no chronologically diagnostic artifacts other than the distal portion of a dart point were recovered. If the latter artifact is in fact associated with midden formation activities, it would suggest at least a Late Archaic age for the midden. No pit feature was discernable in either of the trenches, but large flake rock slabs, some tinted by fire, were observed at the bottom of the midden in Trench 1 (Fig. 8). Also, it is notable that many of the fire-cracked rocks that made up the midden were unusually large, suggesting that they were used only once before discarding.

Other items recovered during the screening operation included only a very small sample chipped stone flaking debris much of it burned. Some of these flakes may have been associated with the activities responsible for midden formation, but this is not necessarily the case. Recent research on burned rock midden formation has indicated that unassociated artifacts mixed in the surrounding matrix that was incorporated in

constructing the earth ovens can be re-deposited within the matrix of the midden itself (Black et al., 1997; Leach and Bousman 1998). This interpretation might explain why patinated flakes and flakes which appeared to have been freshly chipped were among those recovered from the screening.

Area B. While evidence for light prehistoric occupation in the form of a thin scatter of chipped stone material and fire-cracked rock was noted over a large area, the survey party observed an area about 50 meters by 30 meters southeast of Area A and nearer the drop-off to the creek that was disturbed by what appeared to have been relic-hunters potholes (Fig. 1). The GPS location is 14 0546626E and 3276945N. Chipped stone flakes were noted in the back dirt from these disturbances, but certainly not concentrated enough to attract the amount of digging that appeared to have been done. Upon further inspection, however, it is conceivable that the digging was done by feral hogs, known to be plentiful in this portion of Bexar County. This is one of few places on the property where shallow soils occur with any significant depth. What ever the cause of the disturbance, it did reveal a light deposit of prehistoric cultural material that warranted documentation.

Area C: This small burned rock midden is located approximately 35 meters northwest of Area A. The midden consisted of a shallow deposit of fire-cracked limestone and a light scatter of chipped stone debris (Fig. 3). The burned rock concentration measures approximately 15 meters by 5 meters, and is on a slight slope. GPS coordinates for the midden are 0546589E, 3277007N (Zone 14, NAD27). No diagnostic artifacts were found that would provide an age assessment for the midden.

Historic Rock Feature

An enigmatic rock feature consisting of a linear concentration of limestone cobbles oriented east-west about 12 meters long, 3 meters wide and 40 cm high was noted near the northern part of the property (Fig. 9). The UTM coordinates on this feature are: 14 0546625E, 3277064N (Zone 14; NAD27). The purpose of the features is unknown, but it is historic and probably associated with past ranching activities. No site designation was for the feature was established due to its non-diagnostic characteristics.

Summary and Recommendations

The most prominent archaeological features on the Blanco Crossing Unit 3 tract were two burned rock middens. Burned rock middens are the accumulated result of repeated use of earth ovens for baking food products by the Native Americans who occupied the Balcones Canyonlands during the last 8,000 years of prehistory. The pit ovens were lined with limestone slabs and heated; the thermal radiation was used to bake foodstuffs placed on the stones and covered with surrounding fill. Prehistoric groups would return to the same location time and time again to harvest the local plants and cook them in the same features used during previous visits or by previous groups. This particular zone in the canyonlands is a habitat for sotol, a desert succulent and the bulbs of which were cooked

in earth ovens over a period of several days to render them edible. The burned rock middens are a testament to that pattern of utilization.

Both middens were situated directly on either bedrock or exfoliated bedrock. A natural depression in the bedrock was probably used as the original pit feature, and as discarded fire-cracked rocks and ash accumulated around the pit for repeated uses, this debris was used over and over to cap the oven. Consequently, the midden feature itself is a product of repeated churning and disturbing, and artifacts that happened to become incorporated into the midden matrix were either from surrounding occupation refuses secondarily incorporated into the midden matrix or directly deposited in the midden matrix. While such artifacts cannot provide a reliable cross-date for specific cooking episodes as radiocarbon dating from charcoal might, they do provide stylistic information on the general time period the midden accumulated and functional information on tool types used in conjunction with midden formation. Unfortunately no diagnostic tools were found during the course of survey and testing at either midden.

The large of the middens was the only one that exhibited accumulated depth, hence the decision to conduct backhoe testing. Further investigations might yield evidence of one or more pit features are surely present, and less promising, chronologically diagnostic artifacts. The artifact yield from the backhoe testing was very low, and as described above, consisted of only chipped stone debitage and a single biface point tip.

The survey and backhoe testing has provided most of the information that might otherwise be obtained from the large midden. This information includes recording the sites, describing the features, testing on of the midden features and obtaining a profile of the deposits. The only critical piece of information not obtained through these efforts was a better indication of chronological age. Our best guess is that the features are late Archaic. We do not feel further investigations are warranted. The minimal return of new information given the amount of effort that such investigations would entail would not justify further work.

The survey of Blanco Crossing Unit 3 recorded one large archaeological site with three internal features, two burned rock middens and a light occupation area. The larger of the burned rock middens, Midden 2 (Area A), was tested with two backhoe trenches and no internal features were identified. No chronologically diagnostic artifacts were recovered despite screening efforts. No further archaeological work is recommended for Blanco Crossing Unit 3.

References Cited

- Black, S. L., and A. McGraw
1985 *The Panther Springs Site: Cultural Change and Continuity within the Upper Salado Creek Watershed, South-Central Texas.* Archaeological Survey Report 100. Center for Archaeological Research, The University of Texas at San Antonio.

Black, S. L., L. W. Ellis, D. G. Creel, and G. T. Goode

- 1997 *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas*. Two volumes. Studies in Archeology 22, Texas Archeological Research Laboratory, The University of Texas at Austin, and Archeology Studies Program, Report 2, Environmental Affairs Department, Texas Department of Transportation. Austin.

Gerstle, A., T. C. Kelly and C. Assad

- 1978 *The Fort Sam Houston Project: An Archaeological and Historical Assessment*. Archaeological Survey Report 40. Center for Archaeological Research, The University of Texas at San Antonio.

Hester, T. R.

- 2004 The Prehistory of South Texas. In *The Prehistory of Texas*, ed. by T. K. Pertulla, pp. 127-154. Texas A&M University Press, College Station.

Leach, J. D., and C. B. Bousman

- 1998 Cultural and Secondary Formation Processes: On the Dynamic Accumulation of Burned Rock Middens. In *Test Excavations at the Culebra Creek Site, 41BX126, Bexar County, Texas*, by D. L. Nickels, C. Britt Bousman, J. D. Leach, and D. A. Cargill, pp. 119-145. Archaeological Survey Report 265, Center for Archaeological Research, The University of Texas at San Antonio, Archeology Studies Program, Report 3, Environmental Affairs Division, Texas Department of Transportation, Austin.

Potter, D. R. and S. L. Black

- 1995 *Initial Testing and Evaluation of Five Prehistoric Sites in the Upper Salado Watershed, Bexar County, Texas*. Studies in Archeology 18. Texas Archeological Research Laboratory, The University of Texas at Austin.

Potter, D. R., S. L. Black and K. Jolly

- 1995 *Introduction, Conceptual Framework, and Contexts of Archeological Investigations in Bexar County, South-Central Texas*. Studies in Archeology 17. Texas Archeological Research Laboratory, The University of Texas at Austin.

Taylor, F. B., R. B. Hailey, and D. L. Richmond

- 1962 *Survey of Bexar County*. Series 1962, No. 12. United States Department of Agriculture, Soil Conservation Service, Washington, D.C.

Figures

IMAGE RESTRICTED

Figure 1. Aerial map of Blanco Crossing Unit 3 showing the location of 41BX1700 (green outline) and site areas (Area A: midden 2; Area B, occupation; Area C, midden 1. Base image provided by Frost GeoSciences.

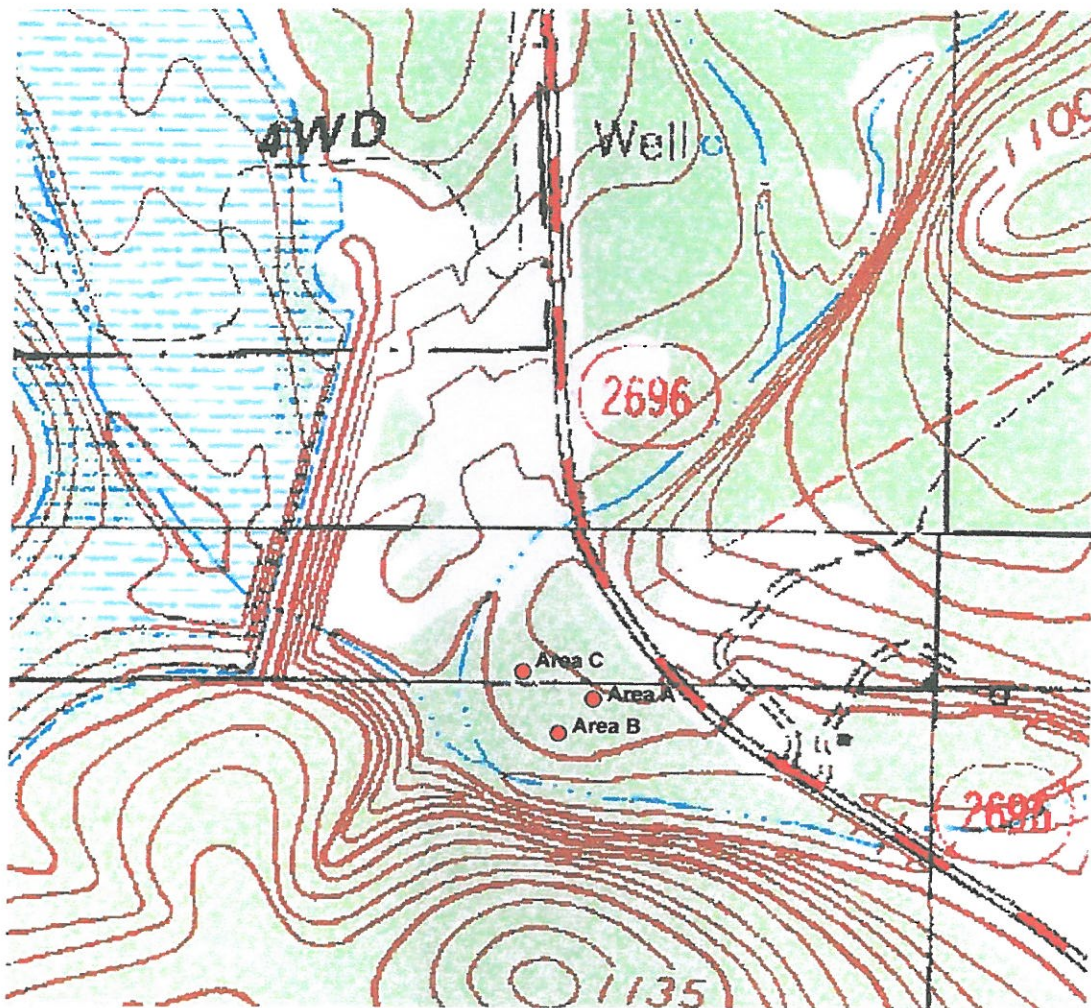


Figure 2. Topographic map of Blanco Crossing Unit 3. Courtesy of Jonathan Jarvis.



Figure 3. Blanco Crossing site 41BX1700 Midden #1 (Area C).



Figure 4. Blanco Crossing site 41BX1700 Midden #2 (Area A).

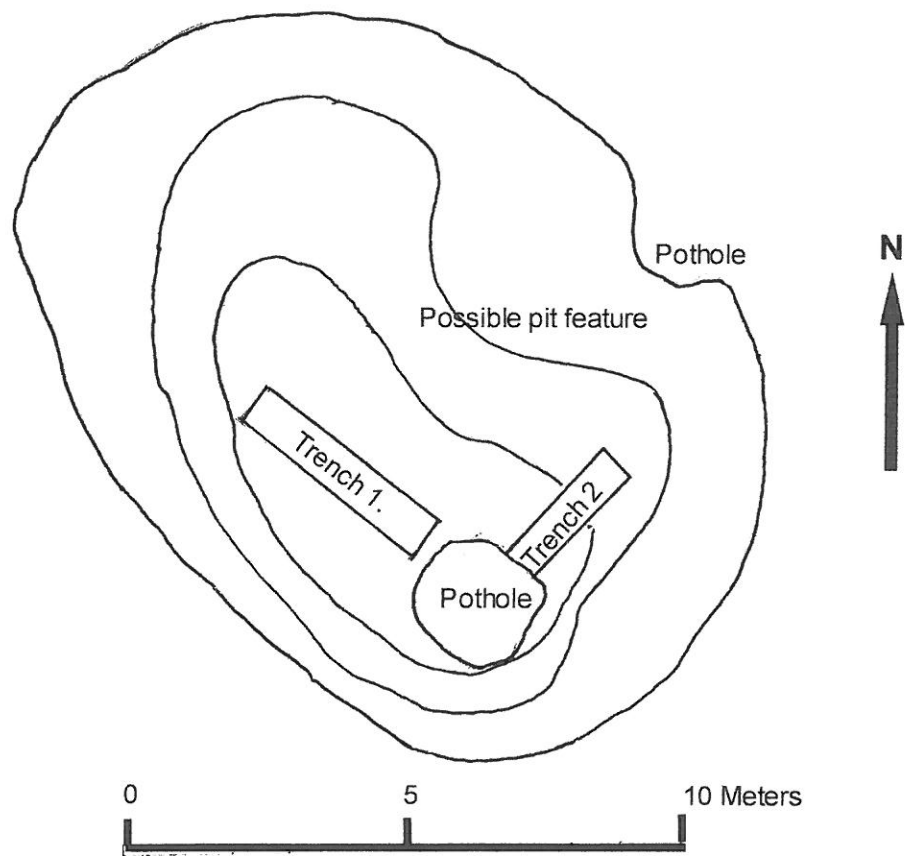


Figure 5. Plan map of Blanco Crossing site 41BX1700 midden #2 (Area A).



Figure 6. Backhoe testing at Blanco Crossing site 41BX1700 midden #2 (Area A).



Figure 7. View of Backhoe Trench 1 profile in Blanco Crossing site 41BX1700 midden #2.

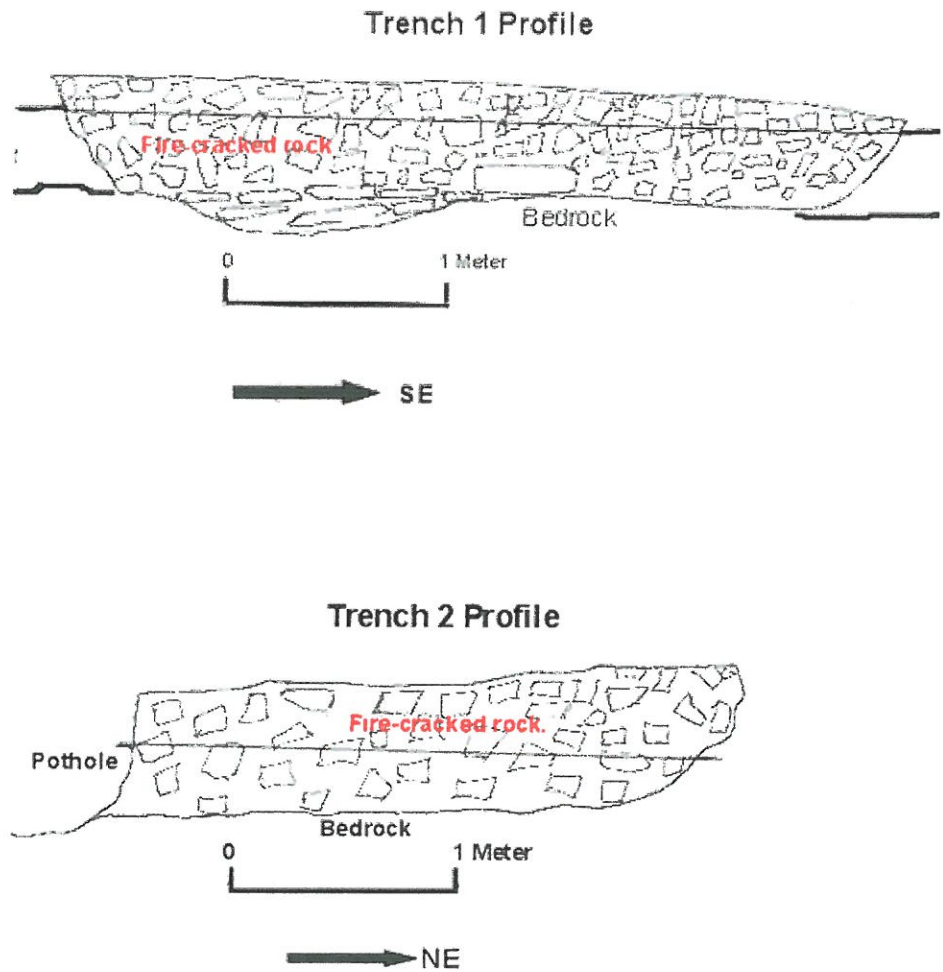


Figure 8. Schematic profiles of Backhoe Trenches #1 (top) and 2 (bottom) at Blanco Crossing site 41BX1700 midden #2.



Figure 9. Historic rock feature noted near the northern end of Blanco Crossing Unit 3 property.